

December 5, 1951

Dr. C. P. Miller
Department of Medicine
University of Chicago
950 East 59 Street
Chicago 37, Illinois

Dear Dr. Miller:

A little while ago, we did some experiments to try to verify the observations by Smith, Oginsky and Umbreit on the metabolism of streptomycin-resistant mutants of *Escherichia coli*. They reported that the S^F mutants were not benefitted by aeration, owing to a defect in the oxidation of pyruvate or other intermediates in carbohydrate metabolism.

We were unable to confirm these observations, either with any of our own S^F mutants, or in strains provided by Oginsky. Aaron Novick suggested that Barkulis may have worked on a similar problem in your laboratory, but I understand she is no longer working, so I am writing to you for details. If, as I suspect, your group has had an equally negative result, I think we should advertise for other members (and I understand there are several) and start a club. More seriously, it might be appropriate to publish a brief, non-confirmatory note.

May I thank Miss Bohnhoff and yourself for your help in providing *E. coli* isolates for fertility testing. The recent lots were received in excellent condition, and are being tested. But I think we have reached the point where further routine tests are no longer needed. I will be happy to test any further cultures you may have on hand when you receive this, or any unusual isolates that may come up in the future. Meanwhile, it will take us quite a while to digest the details that have come up in the 1500 or so isolates already screened. I have a definite impression that human fecal and pathological material (especially infantile diarrheas) give a distinctively higher proportion of interfertile cultures than, for example, the mouse isolates. But there is no common cultural characteristic, and we are not yet very far along in any understanding of the meaning of this result.

Yours sincerely,

Joshua Lederberg